WETLAND CREATION (ACRE)

CODE 658

DEFINITION

A wetland that has been created on a site location which historically was not a wetland or is a wetland but the site will be converted to a wetland with a different hydrology, vegetation type, or function than naturally occurred on the site.

PURPOSE

To create wetlands that **provide desired** functions **appropriate for the site and surrounding wetland complex.**

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to sites where no natural wetland occurred or where a wetland exists, or existed, and the wetland **class and functions** will be different from what historically occurred.

This practice is applicable only if hydrologic conditions can be approximated by modifying drainage and/or artificial flooding of a duration and frequency to create and maintain wetland conditions **with** average annual precipitation.

This practice does not apply to: a constructed wetland intended to treat point and non-point sources of water pollution; wetland enhancement intended to **modify or** rehabilitate **an existing** or degraded wetland where specific functions and/or values are enhanced beyond original conditions; or wetland restoration intended to rehabilitate a degraded wetland where the soils, hydrology, vegetative community, and biological habitat are returned to original conditions. **(See Field Office Technical Guide (FOTG), Section IV, Practice Standards, 656–Constructed Wetland; 657–Wetland Restoration.)**

CRITERIA

General Criteria

The landowner shall obtain necessary local, state, and federal permits before the practice is applied.

Water rights and water availability **will be** assured prior to creation, if required.

Created wetlands will only be located where the soils, hydrology, and vegetation can be modified to meet the current NRCS wetland criteria.

Establish **a** vegetative buffer **on surrounding uplands as needed to control the amount of sediment entering the wetland according to FOTG, Section IV, Practice Standards, 393–Filter Strip; 391–Riparian Forest Buffer; and, 390–Riparian Herbaceous Cover.**

Criteria for Hydric Soil Conditions

Establish an approximation of the soil microtopography typical for the wetland type(s) being established.

Criteria for Wetland Hydrology

Hydrology (rate and timing of inflow and outflow, source, duration, frequency, and depth of flooding, ponding or saturation) will be designed for the wetland type being established.

The standards and specifications for **FOTG, Section IV, Practice Standards,** 356–Dike;

NOTE: This type of font **(AaBbCcDdEe 123..)** indicates NRCS National Standards.
This type of font **(AaBbCcDdEe 123..)** indicates Montana Supplement.

378–Ponds; 410–Grade Stabilization Structure Diversion; 587–Structure for Water Control, **etc.** will be used as appropriate. Refer to the Engineering Field Handbook, Chapter 13, "Wetland Restoration, Enhancement, and Creation," and Chapter 6, "Structures," for additional design information.

Existing drainage systems will be utilized, removed, or modified as needed to achieve the intended purpose.

Criteria for Hydrophytic Vegetation

See FOTG, Section IV, Practice Standard 322–Channel Vegetation or the Practical Streambank Bio-Engineering Guide for specific guidelines that consider soil, seed sources, and species for establishing hydrophytic vegetation (herbaceous or woody) typical for the wetland type(s) being created.

Preference shall be given to native wetland plants with localized genetic material.

Where natural colonization of selected species will realistically dominate within 5 years, then natural regeneration can be **utilized.**

Adequate substrate material and site preparation necessary for proper establishment of the selected plant species shall be included in the design.

Herbaceous vegetation may be established by a variety of methods including: mechanical or aerial seeding, topsoiling, organic mats, etc., over the entire site, or a portion of the site and at densities and depths appropriate.

Forested wetland establishment will include a minimum of three species, where appropriate. Seedling preparation and planting will follow the criteria of **FOTG, Section IV, Practice Standard** 612–Tree Planting.

Seed planting rates and site preparation will meet the criteria of **FOTG, Section IV, Practice Standard** 652–Woodland Direct Seeding. Seed viability will be checked immediately prior to planting.

Criteria for Wetland Functions

Goals and objectives for this practice should include targeted natural wetland functions for the wetland type and the site location.

Implementation of this practice shall not adversely affect threatened, endangered or state species of special concern or their habitats.

CONSIDERATIONS

Consider effect of **runoff** volumes and rates of infiltration, evaporation, and transpiration on the water budget.

Consider the potential for a change in rates of plant growth and transpiration because of changes in the volume of available soil water.

Consider effects on downstream flows or aquifers that would affect other water uses or users.

Consider effects on wetlands or water-related resources and wildlife habitats that would be associated with the practice.

Consider positioning site(s) adjacent to existing wetlands to increase wetland system complexity and diversity, decrease habitat fragmentation, and ensure colonization of the site by wetland flora and fauna.

Consider linking wetlands by corridors wherever appropriate to enhance the wetland's use and colonization by the flora and fauna.

The nutrient and pesticide tolerance of the species planned should be considered where known nutrient and pesticide contamination exists.

Consider effects on temperature of water resources to prevent undesired effects on aquatic and wildlife communities.

Embankments and excavated slopes should be located and shaped in a manner that is compatible with the existing landscape.

Consider impacts to existing natural plant communities.

Consider the potential for salinization of the site.

Plans and Specifications

Specifications for this practice shall be prepared for each site. Specifications shall be recorded using approved specifications sheets, job sheets, narrative statements in the conservation plan, or other documentation. Requirements for the operation and maintenance of the practice shall be incorporated into site specifications.

OPERATION AND MAINTENANCE

The following actions **should** be carried out to insure that this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation), and repair and upkeep of the practice (maintenance):

- Any use of fertilizers, mechanical treatments, prescribed burning, pesticides and other chemicals **should** not compromise the intended purpose. Biological control of undesirable plant species and pests (e.g., using predator or parasitic species) **should** be implemented where available and feasible;

- **Pesticides, when used, shall be applied in accordance with the product label.**

- Timing and level setting of water control structures **may be** required for the establishment of desired hydrologic conditions or for management of vegetation;

- Inspection schedule for embankments and structures for damage assessment;

- Depth of sediment accumulation to be allowed before removal is required;

- Management needed to maintain vegetation, including control of unwanted vegetation;

- Haying and livestock grazing **should** be managed to protect and enhance established and emerging vegetation.

A functional assessment (HydroGeomorphic Method, HGM, or similar approach) may be used before and after wetland creation, in the case of changing wetland class, or to compare a reference area with the created wetland, in the case of creating a wetland where none previously existed, to monitor progress at achieving goals.

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.